

## Patent claims

1. A method for monitoring the condition of a vehicle driver, in which a vehicle's position in a lane is detected and monitored, a  
5 direction of travel is determined, the actual position in the lane is compared with the direction of travel which is determined, and the driver is assisted in maintaining the position in the lane,

characterized

10 in that a warning signal for the driver is generated when the calculated direction of travel exactly matches the actual position in the lane over a prespecified period of time.

2. The method as claimed in claim 1,  
characterized

15 in that a visual and/or audible and/or haptic warning signal is generated.

3. The method as claimed in either of the preceding claims,

20 characterized

in that a test signal, which depends on the driving situation, is added to the calculated direction of travel, and the warning signal is emitted when the vehicle follows the test signal.

25 4. The method as claimed in one of the preceding claims, characterized

in that a deviation from the calculated direction of travel is determined, and the steering angle at which the steering wheel has to be steered to stay in the lane or to move into the lane is determined.

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5. The method as claimed in claim 4,  
characterized

in that a manual torque actuator (6) shifts the zero position of the steering torque by the determined steering angle.

5           6.       The method as claimed in one of the preceding claims, characterized  
in that driver assistance for staying in the lane increases dynamically with the deviation from the calculated direction of travel.

10          7.       The method as claimed in one of the preceding claims, characterized  
in that driver assistance for staying in the lane is slowly withdrawn when no lane is identified.

15          8.       A condition-monitoring device (1) comprising a lane-identification device (2), means (4) for determining a direction of travel, a monitoring device (5) for monitoring deviations from the direction of travel, and a warning device (11),  
characterized  
in that the warning device can be activated when the  
20       monitoring device detects that a specific direction of travel matches an actual direction of travel over a prespecified period of time.

25          9.       The condition-monitoring device as claimed in claim 8, characterized  
in that a "steer-by-wire" system is provided.

30          10.      The condition-monitoring device as claimed in either of claims 8 and 9,  
characterized  
in that a manual torque actuator (6) is provided.